

## Patent claims

1. An implant (1) designed to be fitted in a hole  
5 (2a) formed in jaw bone (2) and overlying soft tissue (3), and comprising a portion (4b') to be placed against the upper edge (2b) of the jaw bone, characterized in that, along at least most of its peripheral extent, the portion is provided  
10 with grooves (9, 9') or recesses designed to stimulate bone movement and bone ingrowth (10) and, by means of said bone ingrowth, to form a barrier against substantial or visible subsidence, around the portion, of the bone (2) with overlying soft tissue (3).
2. The implant as claimed in patent claim 1, characterized in that two or more grooves, for example substantially parallel grooves, are arranged to be placed against the upper edge (2b)  
20 of the jaw bone.
3. The implant as claimed in patent claim 1 or 2, characterized in that each groove (9, 9') or recess consists of an arc-shaped or curved groove or set of recesses following a corresponding arc-shaped or curved jaw bone.  
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4. The implant as claimed in patent claim 1, 2 or 3,  
30 characterized in that each groove or recess (9, 9') has a cup-shaped cross section (9c), for example a cross section of semi-circular shape, hyperbola shape or semi-elliptical shape, or a rectangular cross section with rounded corners, having a depth (D) of 50 - 100 µm, preferably ca.  
35 70 µm.
5. The implant as claimed in any of patent claims 1 -  
4, characterized in that each groove (9, 9') or

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recess has a cup-shaped cross section (9c), for example a cross section of semi-circular shape, hyperbola shape, or semi-elliptical shape, having a width (B) in the range of 70 - 160  $\mu\text{m}$ , and 5 preferably has a value of ca. 110  $\mu\text{m}$ .

6. The implant as claimed in any of patent claims 1 - 5, characterized in that said counteraction or prevention of subsidence means that there is 10 improved contact between the soft tissue (3) and an implant part (5a') or implant attachment component situated above the portion.
7. The implant as claimed in patent claim 6, 15 characterized in that the ingrowth of bone into said groove or grooves or recesses prevents exposure of upper parts of the implant and thus visible exposure of these parts.
- 20 8. The implant as claimed in any of patent claims 5 - 7, characterized in that the bone ingrowth (10) established in the groove or grooves (9, 9') and/or recesses also prevents bacteria and/or organisms from passing down from the upper parts 25 to the underlying parts (4d).
9. The implant as claimed in any of patent claims 1- 8, characterized in that the portion is provided 30 with a groove (9, 9') which extends all round the surface and which is located at the upper/outer parts of the portion and extends substantially in a cross section substantially at right angles to the longitudinal axis (4e) of the implant.
- 35 10. The implant as claimed in any of patent claims 1 - 9, characterized in that the groove and/or recess of the outer/upper portion is/are coordinated with other grooves and/or recesses on another portion or other portions of the implant.